

# V&V Reference Report

## L2 ASCDS Version : 8.4.5

Observation 13677 - L2 Version 2  
Chandra X-Ray Center

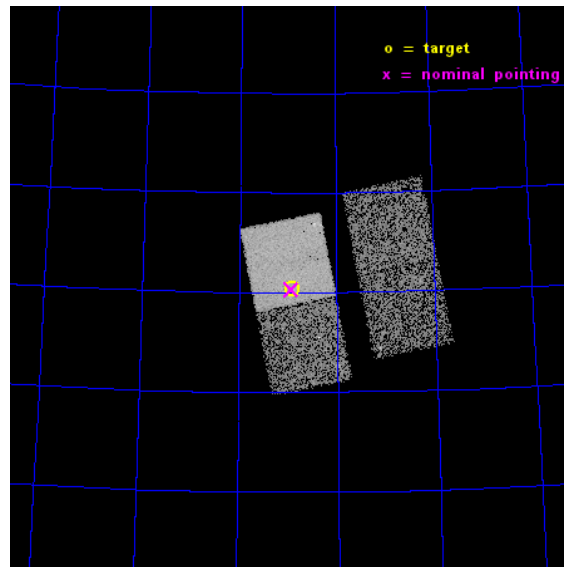
L2 Processing Date : Nov 29 2014

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# 1 Front

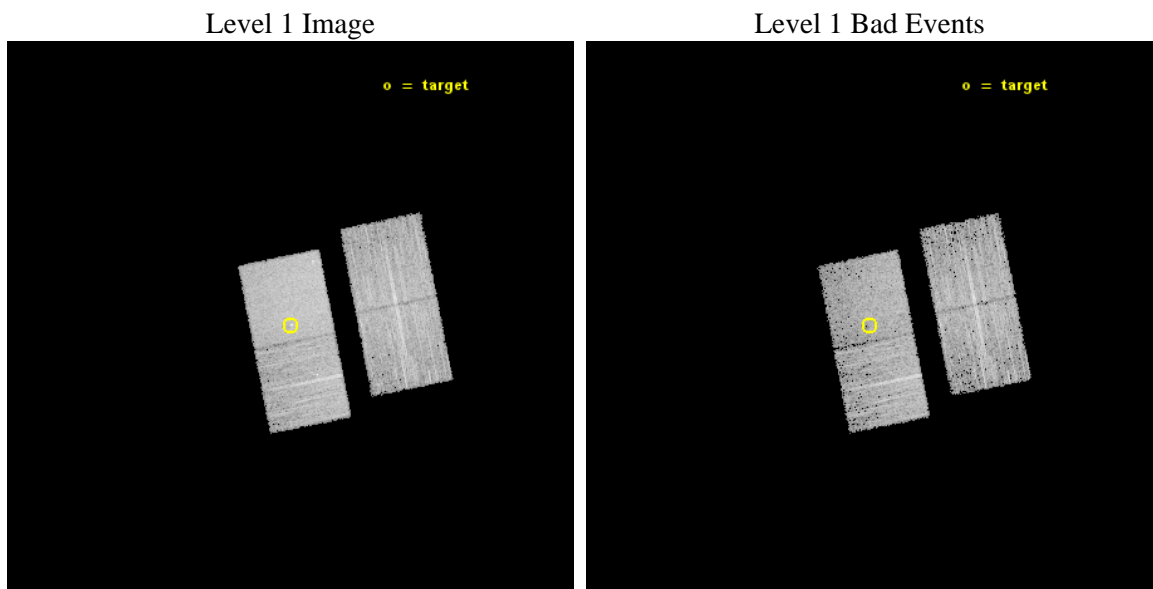
seq_num	300308	Sequence number
obs_id	13677	Observation id
title	Probing Coronal Supersaturation in Pre-Cataclysmic Binaries with M-type Companions	Proposal title
observer	Dr. Jeremy Drake	Principal investigator
object	HS 2237+8154	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	339.315	Observer's specified target RA [deg]
dec_targ	82.17425	Observer's specified target Dec [deg]
ra_nom	339.33099693048	Nominal RA [deg]
dec_nom	82.172077921941	Nominal Dec [deg]
roll_nom	258.68126117689	Nominal Roll [deg]
revision	2	Processing version of data
ontime	9377.5000721216	Sum of GTIs [s]
livetime	9254.9761300642	Livetime [s]
ontime2	9377.5000721216	Sum of GTIs [s]
ontime3	9374.3590117693	Sum of GTIs [s]
ontime6	9377.5000721216	Sum of GTIs [s]
ontime7	9377.5000721216	Sum of GTIs [s]
l2events	43918	Number of level 2 events



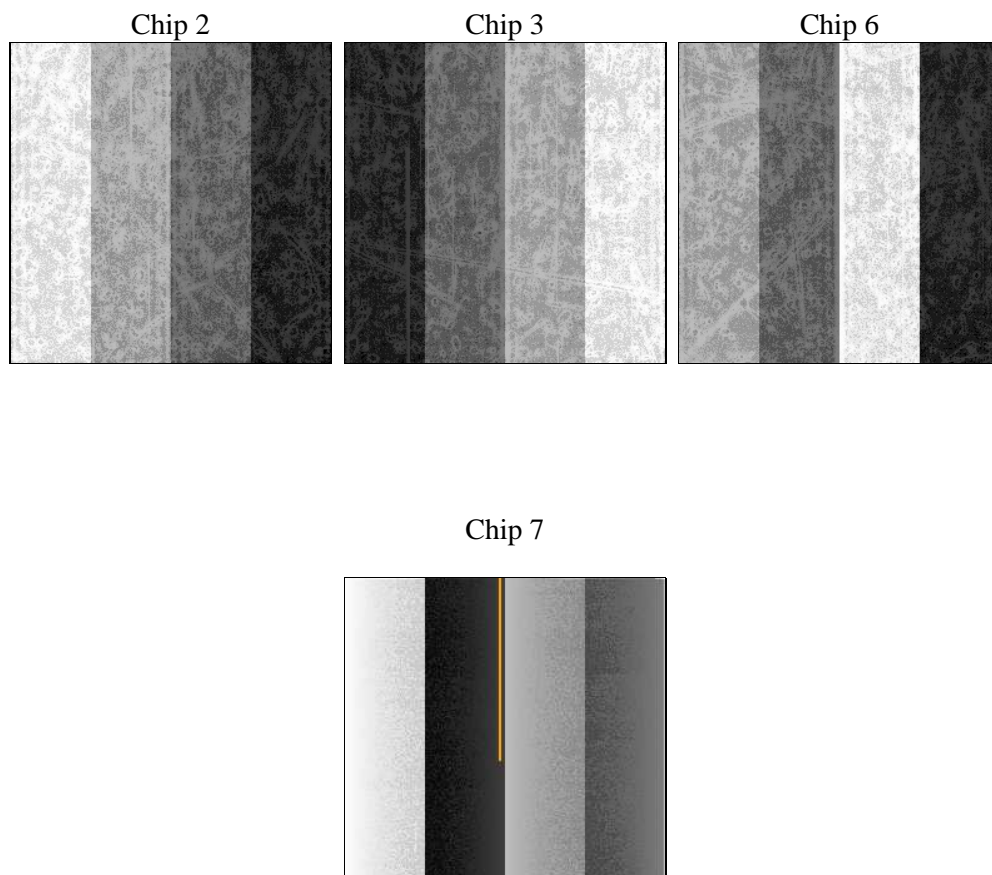
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	9300.000000	[s] Scheduled observation exposure time
ascdsver	10.3	Processing system revision	ontime	9377.5000721216	Sum of GTIs [s]
caldsver	4.6.4	&#160	ontime2	9377.5000721216	Sum of GTIs [s]
date	2014-11-29T14:14:18	Date and time of file creation	ontime3	9374.3590117693	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	9377.5000721216	Sum of GTIs [s]
			ontime7	9377.5000721216	Sum of GTIs [s]
			l1events	214496	Number of level 1 events

### 2.1.4 Events

	ccd 2	ccd 3	ccd 6	ccd 7
level 1 events	48641	47976	50353	67526
rejected events	43170	42597	44248	37518
rejected %	88%	88%	87%	55%

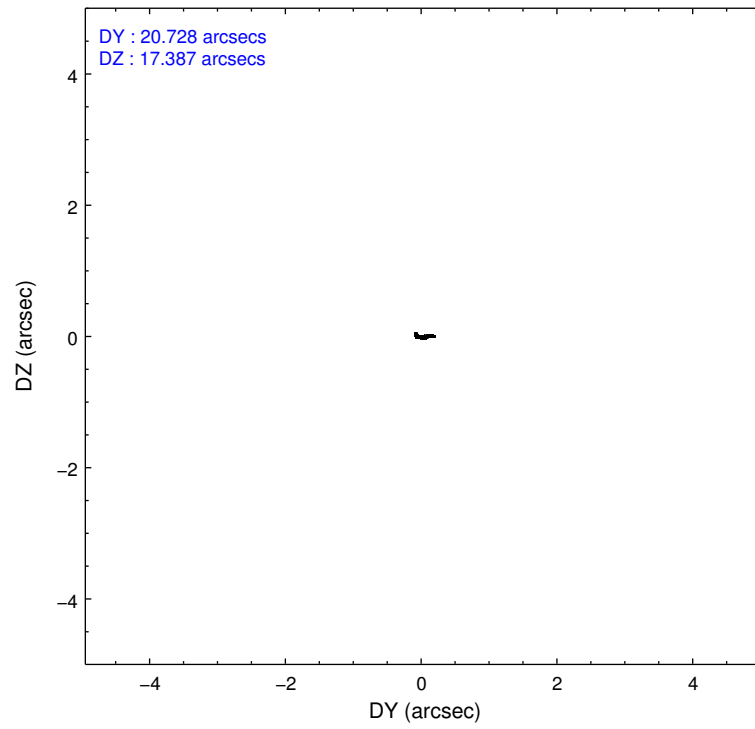
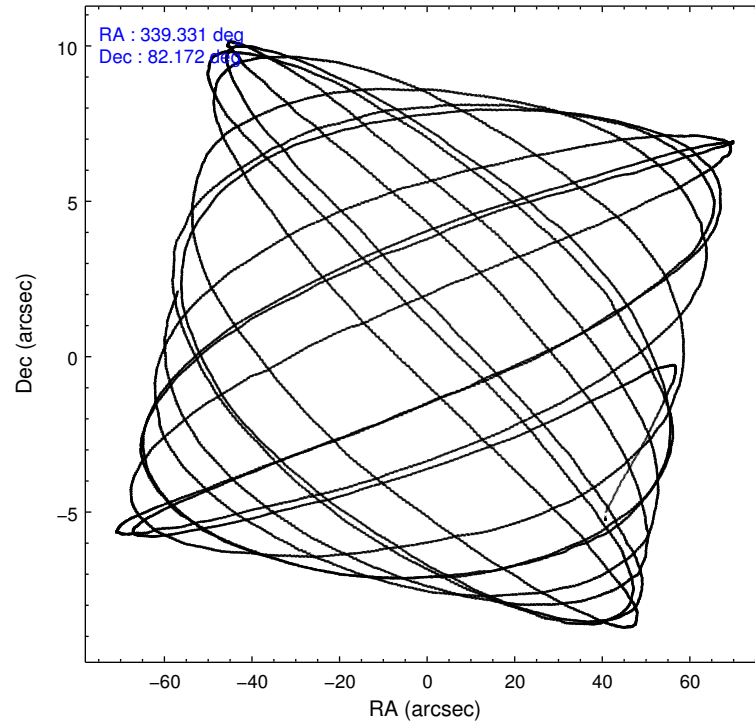
	ccd 2	ccd 3	ccd 6	ccd 7
grade 0 events	1969	1806	2142	2747
	4%	3%	4%	4%
grade 1 events	29	40	37	89
	0%	0%	0%	0%
grade 2 events	1306	1237	1386	6118
	2%	2%	2%	9%
grade 3 events	577	622	610	2588
	1%	1%	1%	3%
grade 4 events	559	563	639	2687
	1%	1%	1%	3%
grade 5 events	2076	2553	2604	7080
	4%	5%	5%	10%
grade 6 events	1060	1153	1329	15877
	2%	2%	2%	23%
grade 7 events	41065	40002	41606	30340
	84%	83%	82%	44%

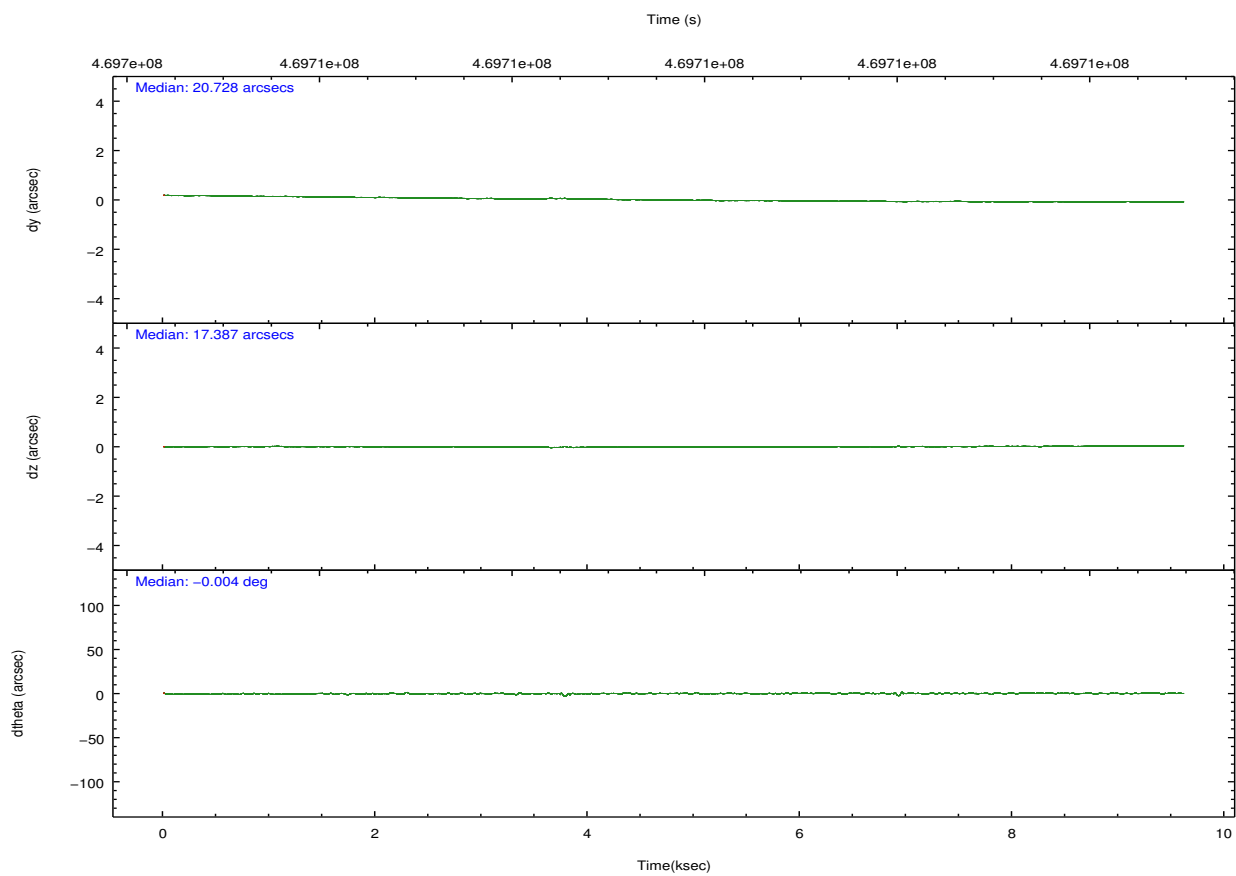
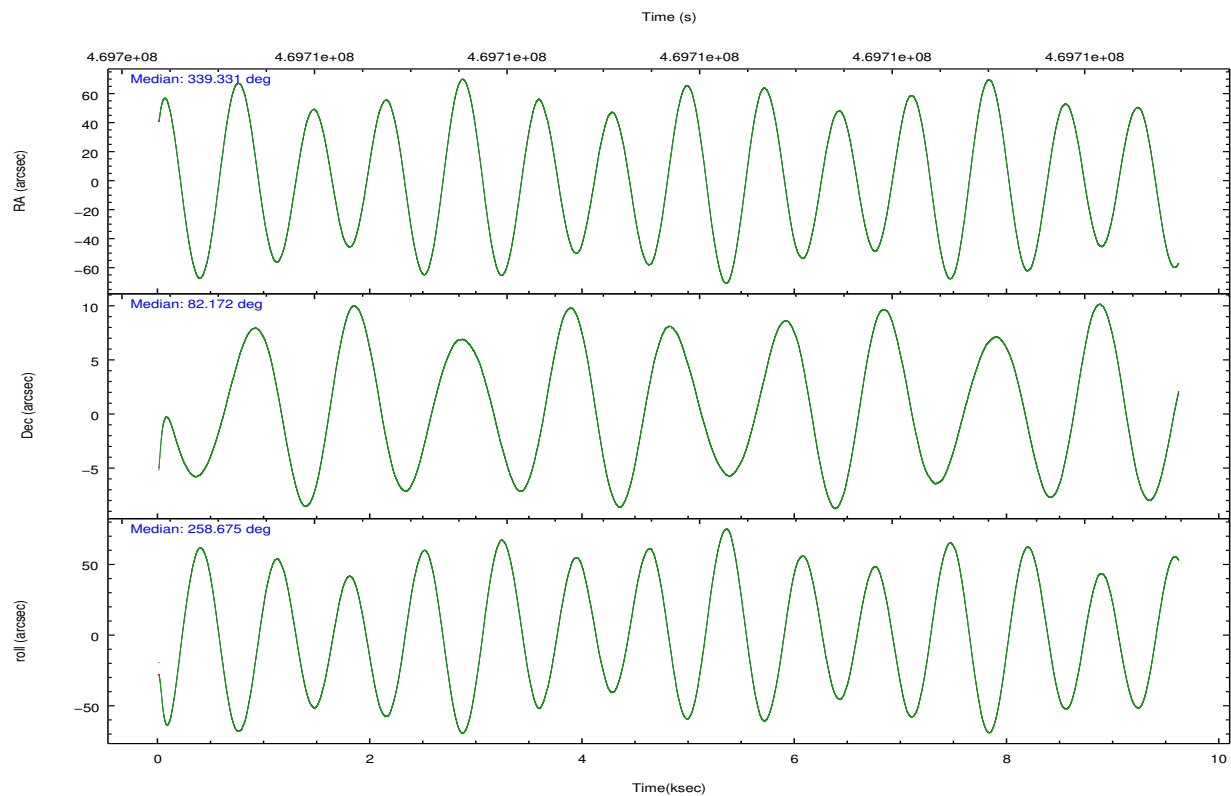


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-2367	ACIS-2367	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	339.263896	339.3309969304847	Subarray requested	NONE	NONE
[deg] Pointing Dec	82.197918	82.17207792194054	Alternating exposures requested	N	N
[deg] Pointing Roll	258.591064	258.6812611768942	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.145094680475			
[mm] SIM translation stage offset	0	0.01257209746719923			
[s] Observation start time (MET)	469705187.184000	469704247.70559			
Observation start date	2012-11-19T09:38:40	2012-11-19T09:24:07			
[s] Observation end time (MET)	469714487.184000	469715303.86869			
Observation end date	2012-11-19T12:13:40	2012-11-19T12:28:23			
Read mode	TIMED	TIMED			

## 2.3 Aspect



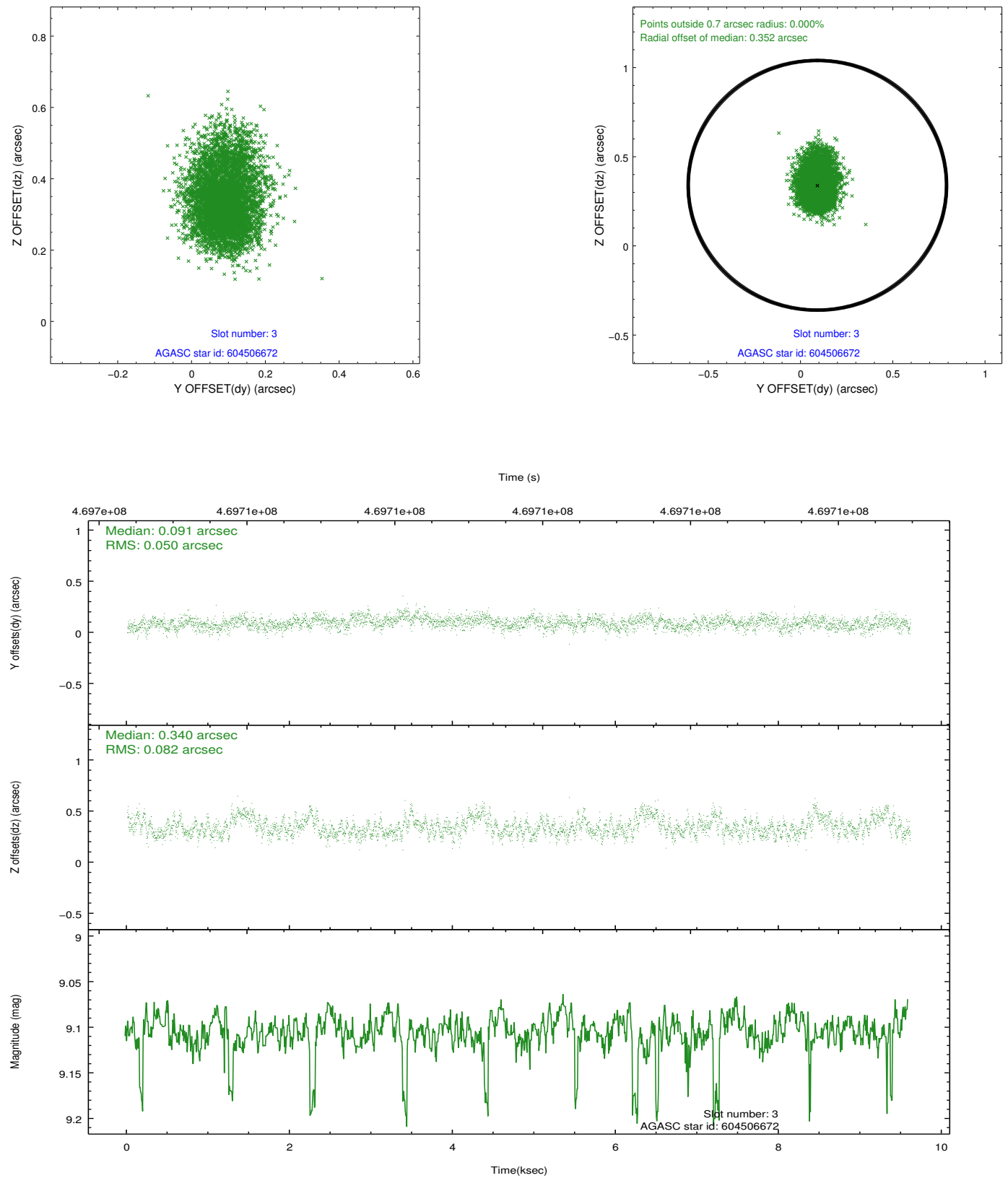


### Slot Statistics

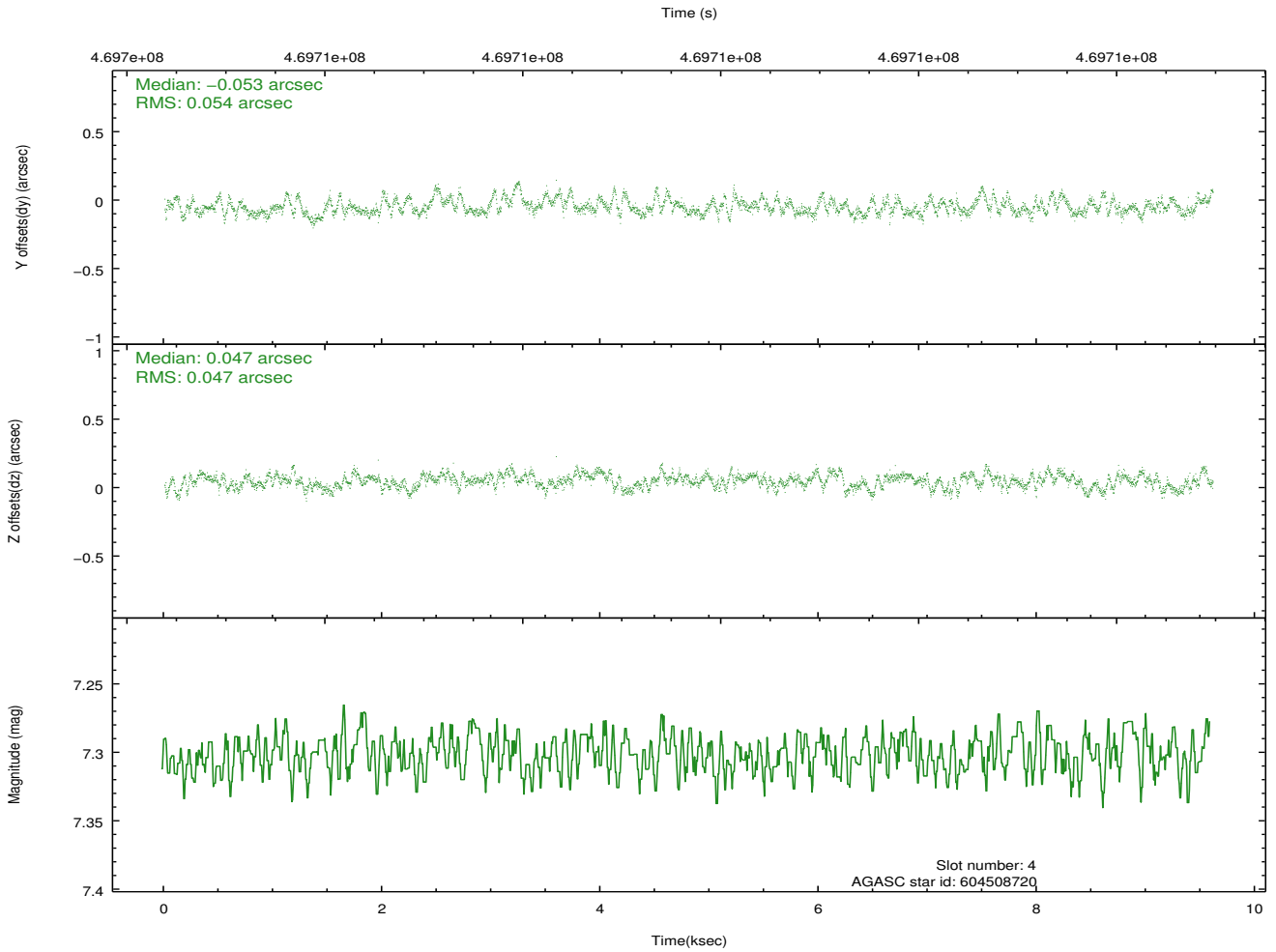
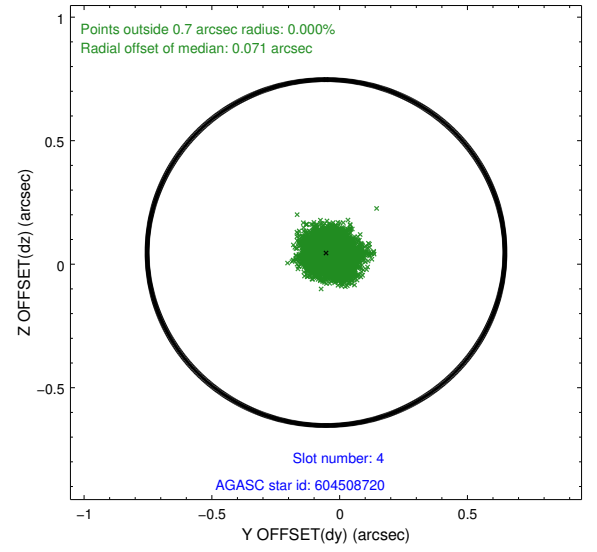
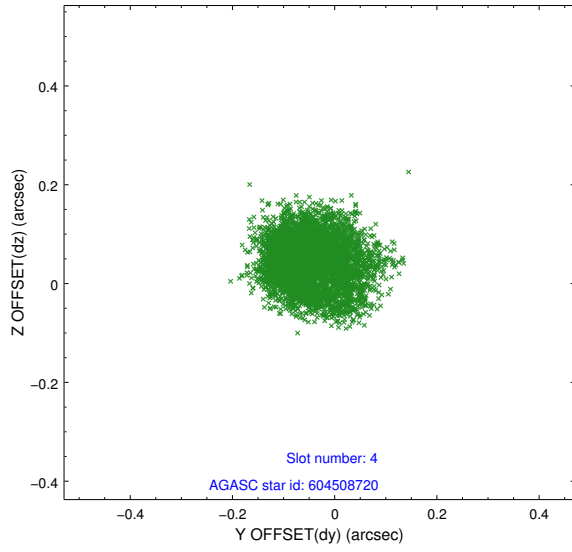
slot	status	used	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID		ACIS-S-1	7.11	2343	0.038	-0.050	0.007	0.012	0.000000	0.000000	922.17	-1734.42
1	FID		ACIS-S-4	7.12	2344	0.191	0.021	0.007	0.012	0.000000	0.000000	2140.06	169.21
2	FID		ACIS-S-5	7.15	2344	-0.256	0.042	0.007	0.012	0.000000	0.000000	-1826.25	163.51
3	GUIDE	used	604506672	9.11	4669	0.091	0.340	0.102	0.169	335.632759	82.486700	-733.40	-1890.30
4	GUIDE	used	604508720	7.30	4686	-0.053	0.047	0.076	0.124	335.657902	81.939144	1216.47	-1609.68
5	GUIDE	used	604638608	8.67	4685	-0.192	-0.086	0.089	0.138	342.737591	81.985561	353.69	1848.28
6	GUIDE	used	604640960	7.37	4687	0.073	-0.226	0.070	0.120	340.761532	81.896132	905.16	958.25
7	GUIDE	used	609488984	8.77	4684	0.080	-0.080	0.075	0.118	341.281431	82.503801	-1282.71	707.63

## 2.4 Star Slots

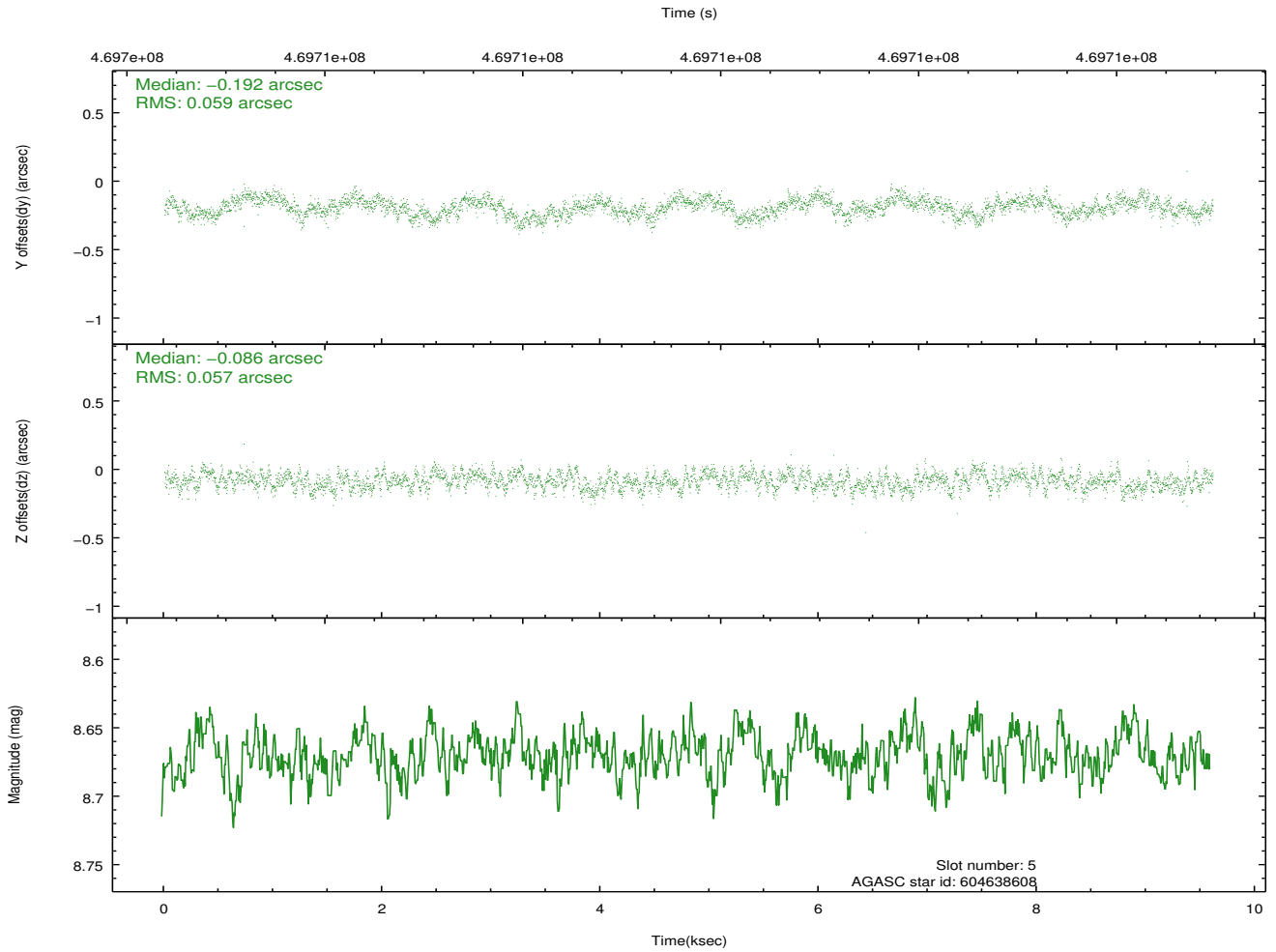
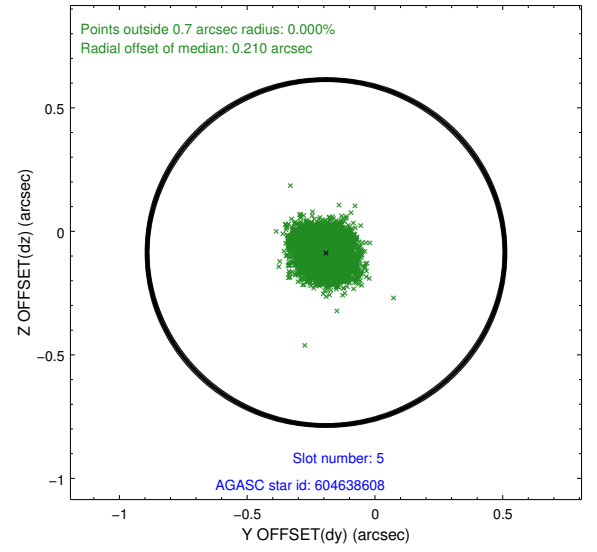
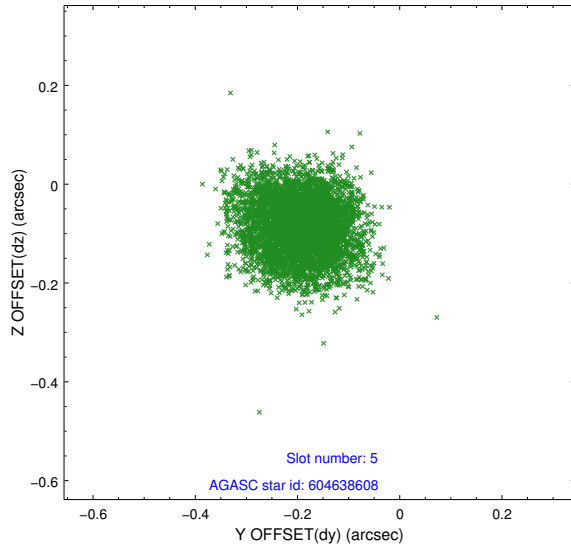
### 2.4.1 Slot 3



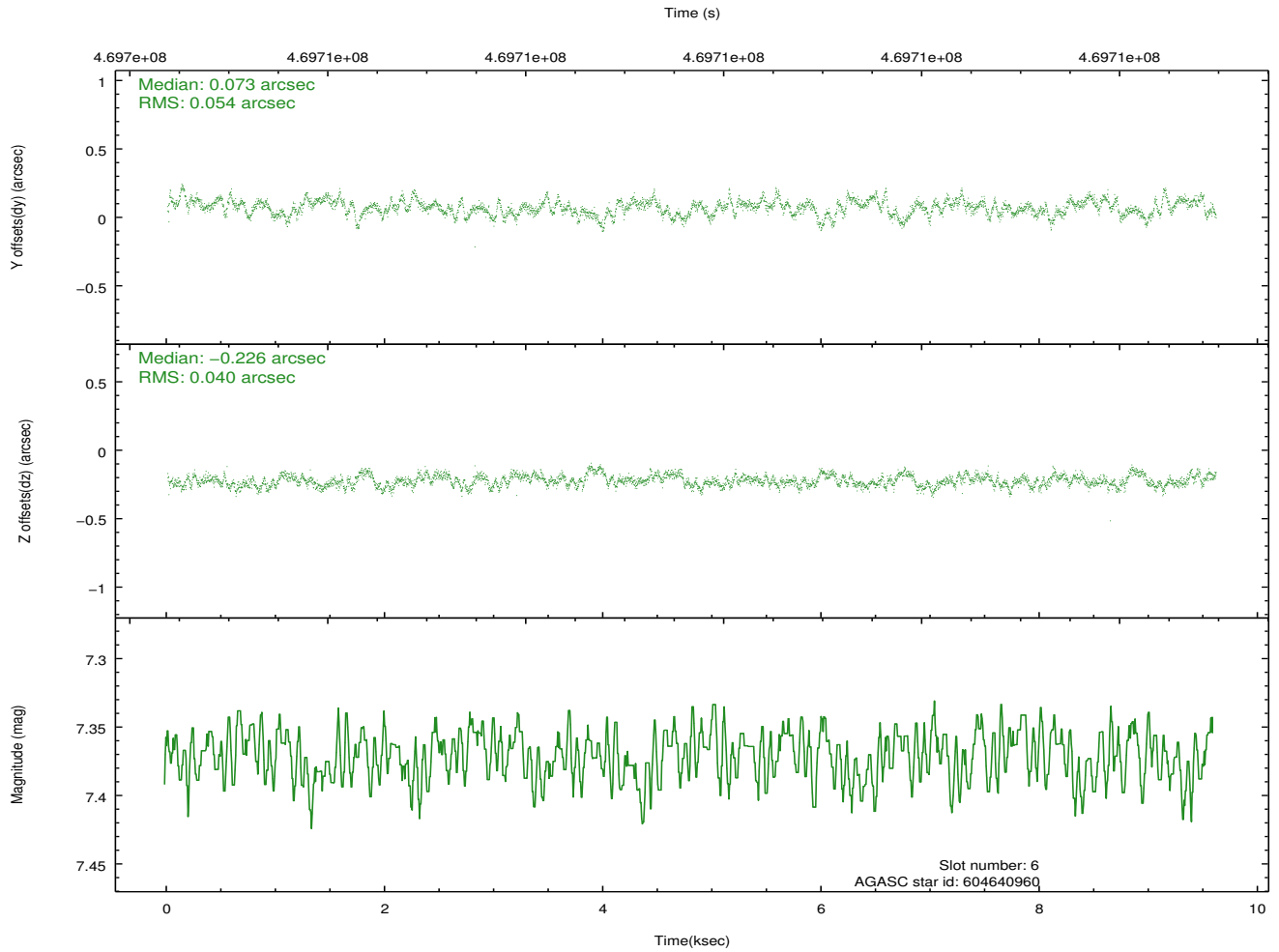
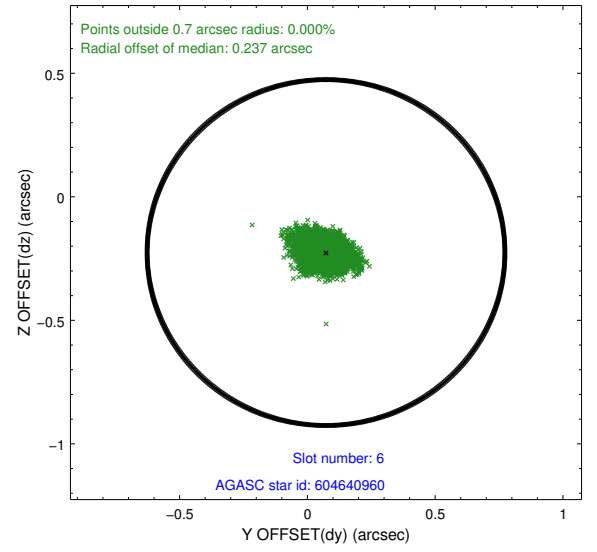
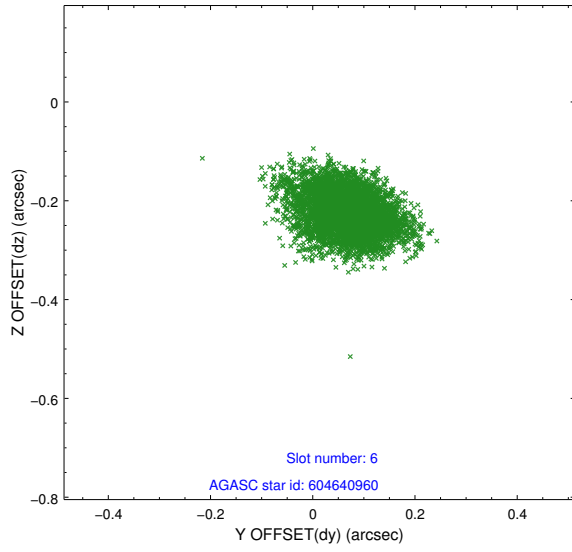
## 2.4.2 Slot 4



### 2.4.3 Slot 5

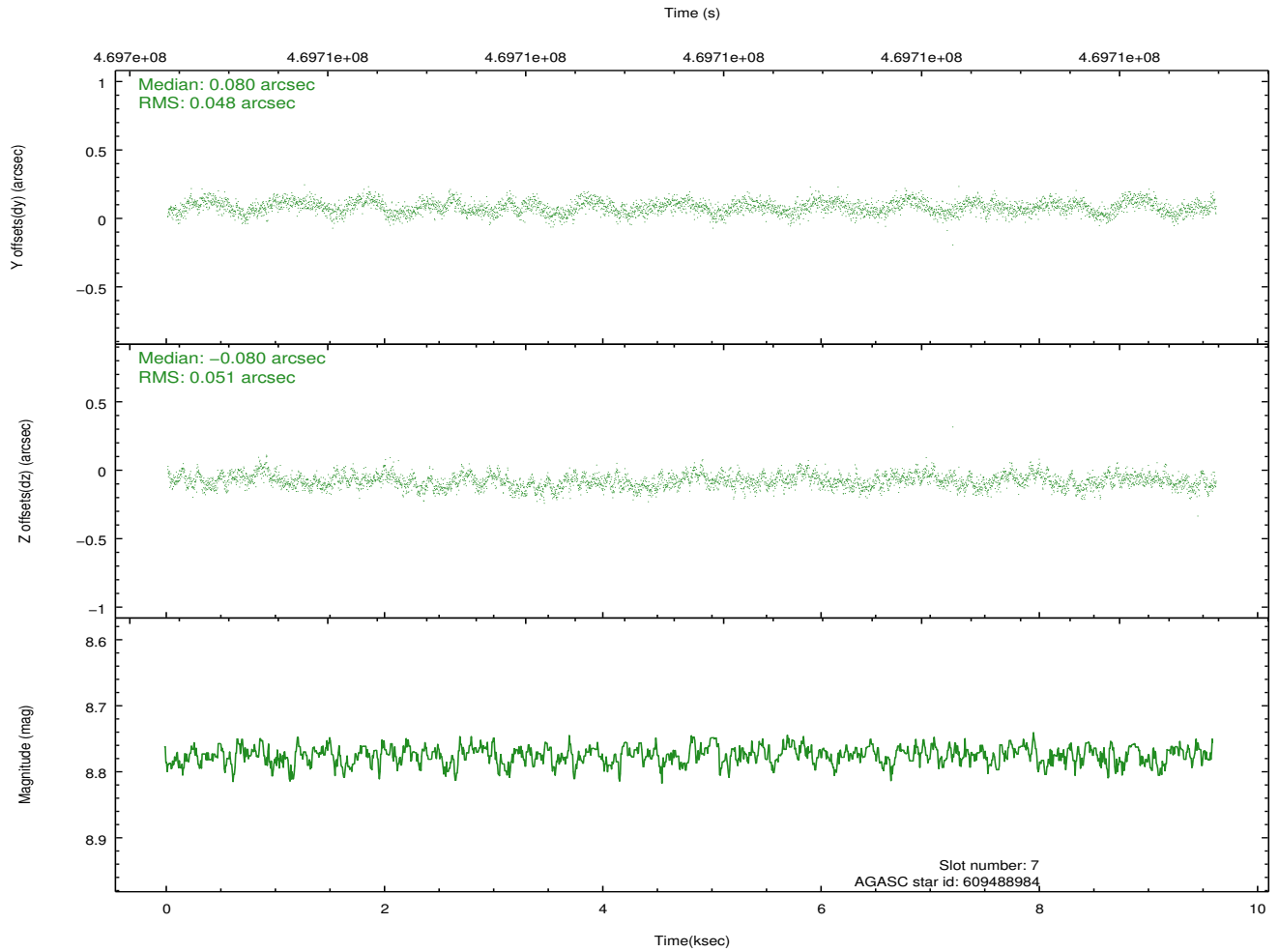
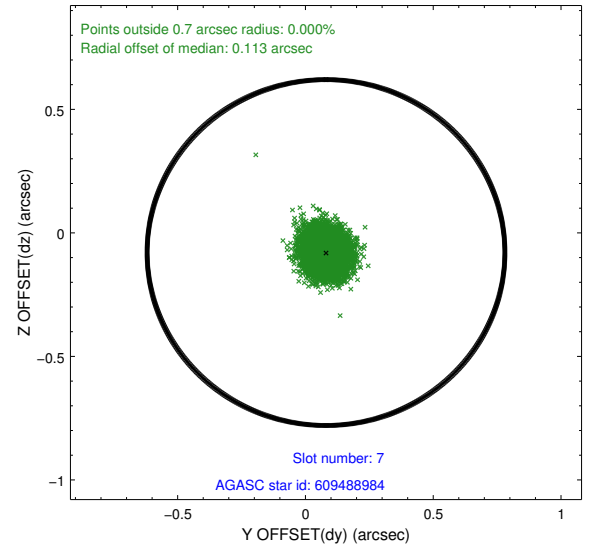
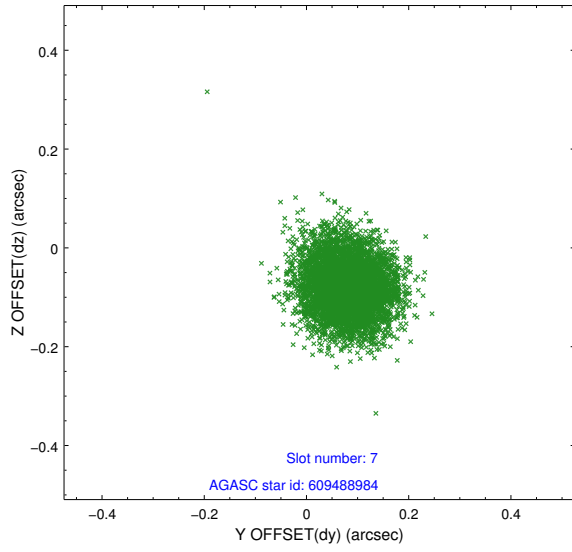


## 2.4.4 Slot 6



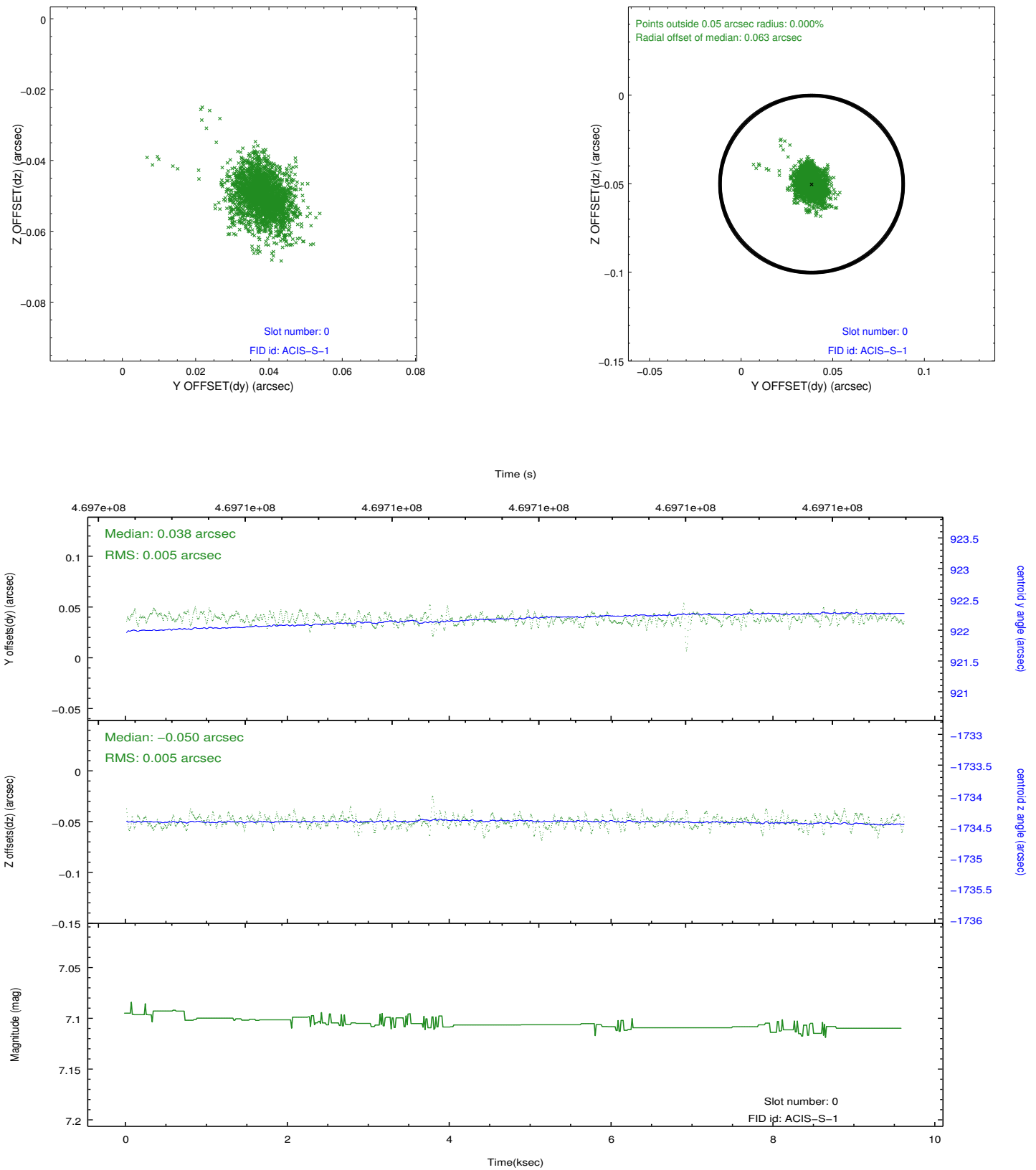


## 2.4.5 Slot 7

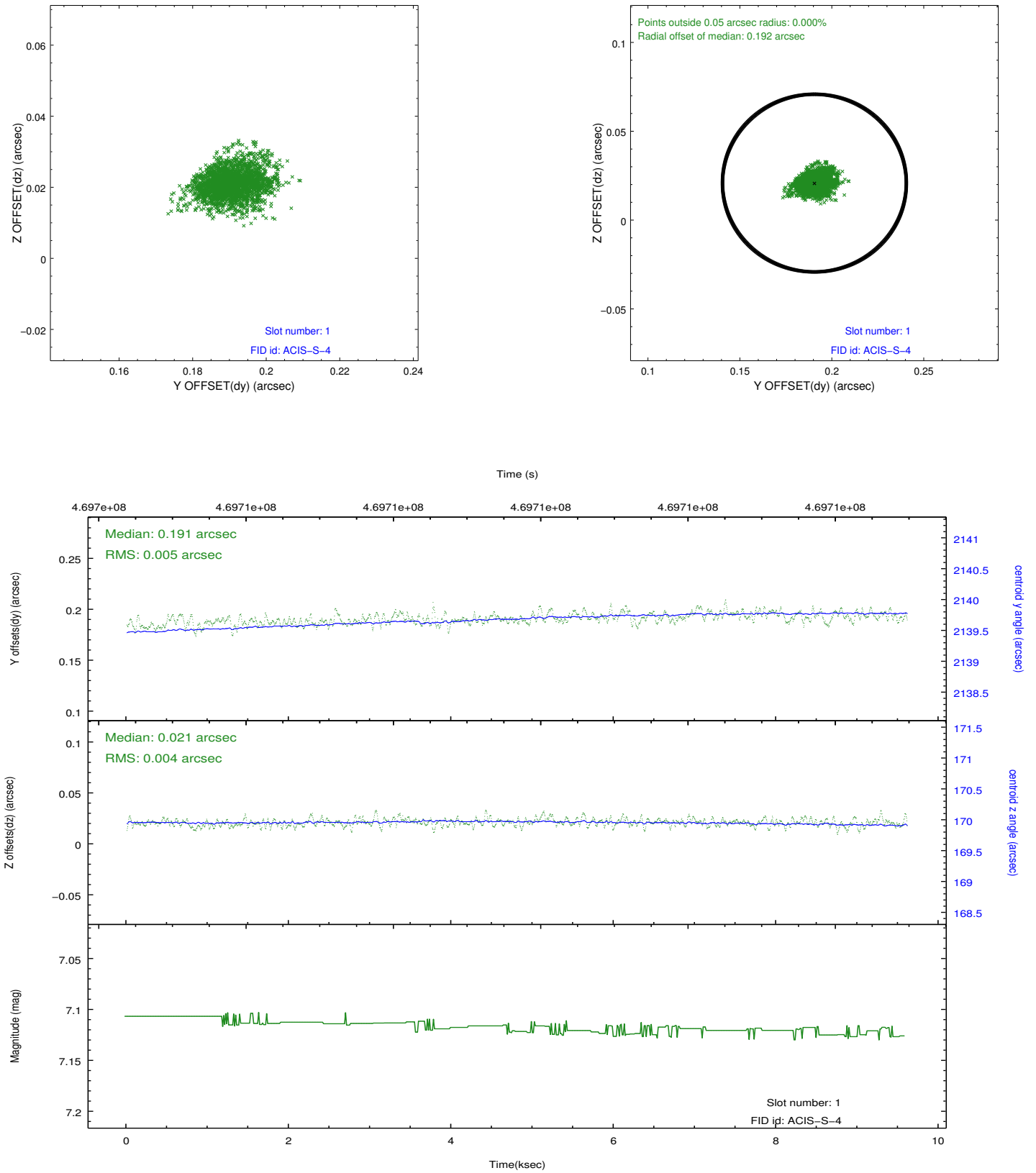


## 2.5 FID Slots

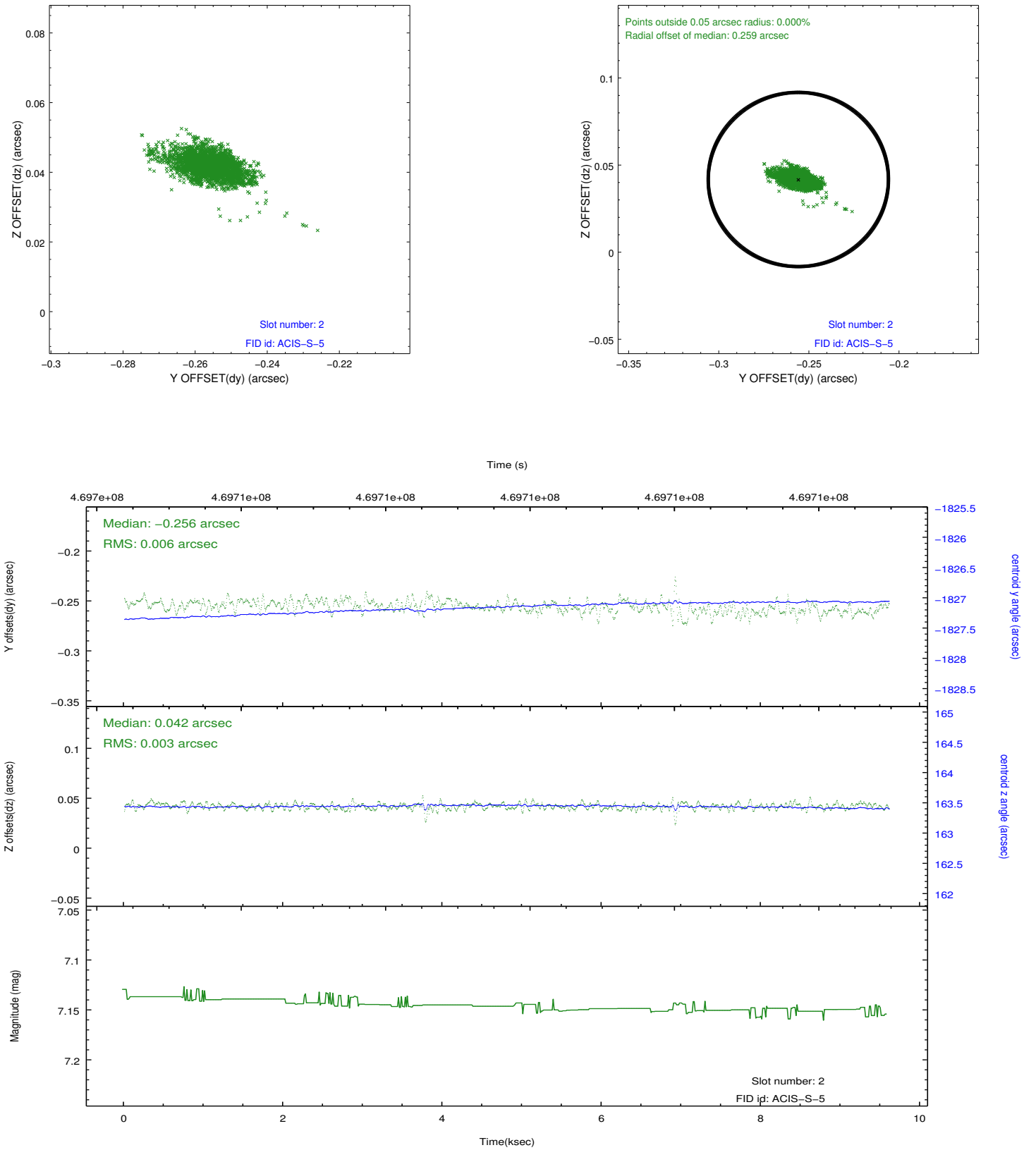
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Beth Sundheim
V&V Date (YYYY-MM-DD)	2014.12.03
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	9.3775000721216

## A.2 Comments

These data have been reprocessed with new aspect alignment calibration files that correct small mean offsets (up to 0.4 arcsecs) and improve overall astrometric accuracy. The new calibration was determined using data from the time period being reprocessed and was performed using cross-correlation of X-ray sources with radio and optical counterparts.